

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A driving method ~~[[of]]~~ for a display device having a light emitting element, ~~a first memory, a second memory, a writing circuit, a reading circuit and a selector circuit and expressing a gradation with a length of lighting time,~~ the method comprising the steps of:

said display device comprising:

a control circuit comprises first to fourth signals, first and second memories, and a reading device and a writing device;

inputting a wherein said first signal shows a state of said writing device, into the reading circuit;

inputting a said second signal shows a state of said reading device, into the writing circuit;

inputting a third signal into the selector circuit;

starting to write a second video data to one of the first memory and the second memory when the first signal and the second signal are in a first state;

setting said third the first signal and the second signal to a second state after the second video data is written to one of the first memory and the second memory; selects the roles of writing and reading to whether said first memory or said second memory, and switches the roles of said first signal and said second signal when said first signal and said second signal become a second state;

setting said fourth the second signal to the first state after a first video data is read from other of the first memory and the second memory; holds said third signal, and

changing a state of the third signal between a third state and a fourth state when the first signal is in the second state and the second signal is in the first state; and said first and second memories are given the roles of writing and reading respectively;

setting the first signal to the first state after changing the state of the third signal, wherein said first signal is inputted to said reading device and said second signal is inputted to said writing device;

wherein the selector circuit selects the first memory as a memory for writing and selects the second memory as a memory for reading when the third signal is the third state, and selects the second memory as the memory for writing and selects the first memory as the memory for reading when the third signal is the fourth state, and

wherein light or non-light of said lighting element is controlled by a video data, said first signal and said second signal are in the first state when said writing device is in a write operation, therefore, said third signal is not inverted and said fourth signal overwrites the state of said third signal,

said first signal becomes the second state when said writing device is in wait state and said second signal also becomes the second state to invert said third signal, the roles of said first and second memories are switched and said second signal returns to the first state again;

said fourth signal compares with said third signal and when the state of said third signal changes, the state of said first signal is returned to the first state and said writing device starts writing thereby; and

the reading device and the writing device are synchronized by a series of operations above;

2. (Currently Amended) A display device having a light emitting element and expressing a gradation with a length of lighting time, said display device comprising:

a control circuit which converts provided data for displaying with time gradation method, wherein said control circuit comprises:

first and second memories to store said data;

a writing device to read said data and write said data to said first memory or said second memory;

~~a reading device to read said data from said first memory or said second memory to output said data;~~

~~a means to decide the roles for writing and reading to said first memory and said second memory in accordance with the states of said writing device and said reading device; and~~

~~first memory selector and second memory selector to select a writing and a reading to said first memory and said second memory;~~

~~wherein said writing device and said reading device are synchronized thereby~~

~~a light emitting element;~~

~~a first memory;~~

~~a second memory;~~

~~a selector circuit which selects one of the first memory and the second memory as a memory for writing and selects other of the first memory and the second memory as a memory for reading;~~

~~a reading circuit which reads a video data from a memory for reading; and~~

~~a writing circuit which writes the video data to a memory for writing and enters a wait state after writing is finished,~~

~~wherein a pulse of a constant period is input into the writing circuit,~~

~~wherein start of writing of the writing circuit is controlled based on the pulse after revision of a selection by the selector circuit, and~~

~~wherein light or non-light of the lighting element is controlled by the video data.~~

3. (Currently Amended) A display device according to claim 2,

wherein the light emitting element, said the first memory, the second memory, said memory the selector circuit, said the reading device circuit and said the writing device circuit are formed over a display portion and a substrate altogether.

4. (Canceled).

5. (Previously Presented) A display device according to claim 2,
wherein said memory is implemented over a substrate.

6. (Currently Amended) ~~An electronic device comprising the display device of claim 2~~
The display device according to claim 2, wherein the display device is incorporated in an
electronic device selected from the group consisting of a video camera, a digital camera, a
google display, a navigation system, a sound reproduction device, a laptop personal computer, a
game device, a personal digital assistant and picture reproducer.

7. (Currently Amended) A driving method for a display device having a light emitting
element, a first memory, a second memory and a selector circuit, wherein the selector circuit
selects one of the first memory and the second memory as a memory for writing and selects the
other of the first memory and the second memory as a memory for reading and writes video data
to the first memory and the second memory alternately, the method comprising the steps of:
changing selection of the selector circuit after writing a second video data to the memory
for writing and reading a first video data from the memory for reading; and
starting to write a third video data to the memory for writing based on a pulse having a
constant period received after changing selection of the selector circuit,
wherein light or non-light of the lighting element is controlled by the video data.

and expressing a gradation with a length of lighting time;
said display device comprising:
a control circuit which converts provided data into the signals for displaying with time
gradation method;
wherein said control circuit comprises:
first and second memories to store said data;
a writing device to read said data and write said data to said first memory or said second
memory;

a reading device to read said data from said first memory or said second memory to output said data;

a means to decide the roles for writing and reading to said first memory and said second memory in accordance with the states of said writing device and said reading device; and

a memory selector for writing and a memory selector for output to select a writing and a reading to said first memory and said second memory;

wherein said means to decide the roles for writing and reading to said memories comprises:

a circuit which switches said first memory and said second memory selected by said memory selector for writing and said memory selector for output at the point said writing device finishes writing into said first memory or said second memory selected by said selector for writing, and said reading device finishes reading from said first memory or said second memory selected by said selector for output; and

a circuit which recognizes whether said first or second memories selected by said memory selector for output are switched at the point when said writing device finishes writing into said first or second memories selected by said selector for writing, besides said writing device finishes reading from said first or second memories selected by said memory selector for output, and makes said writing device into the state of writing when said first and second memories are switched by said memory selectors for writing and output;

wherein said writing device and said reading device are synchronized thereby.

8-11. (Canceled)

12. (Withdrawn) A display device having a light emitting element and expressing a gradation with a length of lighting time,

said display device comprising:

first and second memories;

a conversion circuit to convert video signals from serial to parallel; and

first switch and second switch,

wherein the video signal is inputted to said first memory or said second memory through said first switch after converted to parallel by said conversion circuit, and

an output signal of said first memory or said second memory is inputted to a display through said second switch.

13. (Withdrawn) A display device according to claim 12,
wherein said memory is implemented on FPC.

14. (Withdrawn) A display device according to claim 12,
wherein said memory is implemented over a substrate.

15. (Withdrawn) An electronic device comprising the display device of claim 12.

16. (Currently Amended) A driving method ~~[[of]]~~ for a display device having a light emitting element, a first memory, a second memory and a writing circuit, where video data is written to the first memory and the second memory alternately, the method comprising the steps of:

inputting a pulse having a constant period into the writing circuit;
writing a second video data to one of the first memory and the second memory;
setting the writing circuit to a wait state after the second data is written to one of the first memory and the second memory; and

starting to write a third video data to other of the first memory and the second memory after a first video data is read from other of the first memory and the second memory and the pulse is input into the writing circuit in the wait state,

wherein light or non-light of the lighting element is controlled by the video data,
a control circuit comprising:
a first memory;

a second memory, wherein said first and second memories are given the roles of writing and reading respectively;

a writing device wherein a first signal includes an information about a state of said writing device; and

a reading device wherein a second signal includes an information about a state of said reading device;

wherein said first signal and said second signal are in the first state when said writing device is in a write operation; and

said first signal becomes a second state when said writing device is in a wait state and said second signal also becomes the second state so that the roles of said first and second memories are switched and said second signal returns to the first state again, and the state of said first signal is returned to the first state and said writing device starts writing.